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UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

POST OFFICE BOX 1306
ALBUQUERQUE, NEW MEXICO 87103

JUN 22 1983

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MEMORANDUM

To: Regional Director, Bureau of Reclamation, Lower Colorado Region, Boulder City, Nevada

From: Regional Director, Region 2, Albuquerque, New Mexico

Subject: Section 7 Consultation for Yuma Flood Control Project

This responds to your April 26, 1983, request for formal Section 7 consultation as provided for by the Endangered Species Act on your proposal to provide flood control on the Colorado River near Yuma, Arizona.

The following background information and biological opinion are based on the Biological Assessment prepared by your Yuma office, data in our files, previous Yuma clapper rail (Rallus longirostrus yumanensis) surveys, and consultation with people familiar with the biology of the Yuma clapper rail.

Background Information

This consultation was initiated on April 26, 1983, when our Division of Ecological Services, Phoenix, Arizona, received your request for formal consultation and the biological assessment.

The Yuma clapper rail was listed as endangered on March 11, 1967. By that time, this species had expanded its distribution along the Colorado River because dams had created suitable marsh habitat. Expansion of Yuma clapper rail populations currently is limited by available habitat.

Rail habitat on the Colorado River consists of shallow water marshes containing dense stands of cattail (Typha latifolia) and bulrush (Scirpus acutus). Shallow water with mud flats readily available for feeding are preferred by rails. Cattail and bulrush stands dissected by narrow water channels several feet wide appear to be favored areas, whereas salt cedar (Tamarix spp.) stands are rarely utilized except in Mexico or where other suitable habitat is lacking. Preferred freshwater breeding habitat is adjacent to dry land and contains low density cattail and bulrush stands with downed vegetation. Data indicate most Yuma clapper rails migrate annually, leaving their nesting habitat along the Colorado River in September and October and returning in March and April. Apparently they are nocturnal migrants and follow the Colorado River to areas in Mexico where they spend the winter; however, a few remain in the United States.

Current estimates indicate that the Yuma clapper rail population exceeds 1,700 birds distributed from the Colorado River delta in Mexico, northward to Topock Marsh, which is part of the Havasu National Wildlife Refuge, Arizona. The U. S. populations have areas of high density including Topock Marsh, Parker Division, Imperial National Wildlife Refuge, and Mittry Lake.

This project is designed to increase conveying capacity of the Colorado River from Laguna Dam to the diversion pool above Morelos Dam. The low flows in this reach of the river in recent years have increased aggradation of the riverbed and thereby raising the water surface. Phreatophyte growth has increased within the levees which reduces the scouring action needed to allow water passage during early stages of runoff. Together, these factors have resulted in an estimated 40 percent decrease in the capacity of the channel to pass a levee-designed flood.

Two alternatives are being considered to alleviate this condition:

Alternative 1 - Selective Clearing, Backwaters, and Deepened Main Channel. The primary features of this alternative include deepening of the main river channel and creation of backwaters and side channels as well as the selective clearing of 26.4 acres of riparian vegetation. This plan will involve the dredging of 1,643,000 cubic yards of material and, as detailed in the Environmental Assessment provided by the Bureau of Reclamation, will result in the direct loss of 52 acres of carrizo (Phragmites communis), 2 acres of bulrush, and 1 acre of cattail. However, because of the anticipated 5-to-7-foot drop in the groundwater as a result of main channel dredging, all 2,000 acres of riparian vegetation within the Yuma Division could potentially be lost. It is unlikely that the riparian vegetation will reestablish because of the dewatering and the steep slopes on the dredged river channel. This will essentially eliminate the Yuma clapper rail from the Yuma Division. Alternative 1 is designed to create 12 acres of marsh habitat which will, at best, provide habitat for 6 rails based upon the data presented by Smith, 1973 that indicates rails establish territories averaging 3.55 acres. As many as 76 rails have been reported from the Yuma Division (1974 survey) and as few as 12 (1981 survey).

Alternative 2 - Selective Clearing. This alternative will provide for the selective removal of riparian vegetation and the dredging of backwaters and side channels. There would be no deepening of the main river channel. Alternative 2 would result in the direct loss of 20 acres of carrizo, less than 1 acre of bulrush, and 1 acre of cattail. Because this alternative will have no significant effect on groundwater levels, the majority of the riparian vegetation will not be impacted. Additionally, Alternative 2 will result in the creation of 9 acres of marsh-type habitat.

Alternative 1 could potentially result in the loss of habitat capable of supporting as many as 70 Yuma clapper rails considering that the project will

create habitat for 6 rails. Alternative 2 could potentially result in the loss of habitat for 1 rail. This is based upon the fact that the project will result in the destruction of habitat capable of supporting 6 rails while creating habitat capable of supporting 5 rails.

Biological Opinion

It is our biological opinion that construction of Alternative 1 is likely to jeopardize the continued existence of the Yuma clapper rail. Habitat for 70 rails could be lost, which represents nearly 10% of the rail population in the United States. This loss can be avoided by the selection of Alternative 2, which will have almost no adverse impacts to the Yuma clapper rail. It is our biological opinion that the construction of Alternative 2 will not jeopardize the continued existence of the Yuma clapper rail. It is estimated that at the worst, habitat for one rail may be lost. This does not represent a significant loss to the breeding population. Therefore, Alternative 2 (nonjeopardy) is to be considered a reasonable and prudent alternative to Alternative 1 (jeopardy).

Incidental Take

Under provisions of the 1982 amendments to the ESA, we are required to address the taking of listed species for those actions which do not violate Section 7 (a)(2); in this case, Alternative 2, which is also the reasonable and prudent alternative to Alternative 1 (jeopardy). If construction is undertaken during the period May through July, Yuma clapper rails are likely to be displaced and the possibility exists that some eggs or young would be lost. The anticipated displacement of a maximum of 6 to 7 pairs of adults or loss of productivity from these pairs over the period of construction will be balanced by the additional habitat available to rails over the long term. This taking can be alleviated by the reasonable and prudent measure of not undertaking any construction activity in habitat suitable for Yuma clapper rails during the months of May, June, and July. This is the only condition which must be complied with to alleviate loss of rails through taking.

Further consultation is not required unless the project action is revised beyond what was considered here, and new species listed or critical habitat designated which would be affected by this project.

We would appreciate being advised of your course of action.

/s/ Michael J. Spear

cc: Director, Arizona Game and Fish Department, Phoenix, Arizona
Director, California Department of Fish and Game, Sacramento, CA
Director, FWS, Washington, D.C. (OES)
Field Supervisor, ES Field Office, Phoenix, AZ